IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Application No. 10/694,960) Confirmation No. 4443
Filed:	October 28, 2003))
Applicants:	Isabelle LAYE et al.	This Pre-Appeal Brief Request For Review was electronically filed on July 3, 2007 using the USPTO's EFS-Web.
Title:	PROCESS CHEESE CONTAINING INCREASED LEVELS OF WHEY PROTEIN	
Art Unit:	1761))
Examiner:	Leslie A. WONG)))
Attorney Do	cket: 1410/79708))
Customer No.: 22242		ý)

Commissioner for Patents P. O. Box 1450 Alexandria, Virginia 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

 $Applicants \ request \ review of the Office \ Action \ mailed \ April \ 4,2007 \ in \ the \\$ above-identified patent application. No amendments are being filed with this request.

A Notice of Appeal is also being filed with this request.

The review is requested for the reasons stated in the Brief in Support of Pre-Appeal Request For Review filed herewith. Application No. 10/694,960
PRE-APPEAL BRIEF REQUEST FOR REVIEW dated July 3, 2007
Reply to Office Action of April 4, 2007

The Commissioner is hereby authorized to charge any additional fees which may be required with respect to this communication, or credit any overpayment, to Deposit Account No. 06-1135.

Respectfully submitted,
FITCH, EVEN, TABIN & FLANNERY

Dated: July 3, 2007 /Jeffrey A. Chelstrom/

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Mail Stop AMENDMENT Commissioner for Patents P. O. Box 1450 Alexandria, Virginia 22313-1450

BRIEF IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

In response to the Office Action mailed April 4, 2007 in the above-identified patent application, please enter the following Brief In Support of the Pre-Appeal Request For Review. A Notice of Appeal is also filed herewith.

Claims 1-7 and 27-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 5,750,177 ("Yee").

Application No. 10/694,960

Brief In Support Of Pre-Appeal Brief Request For Review dated July 3, 2007

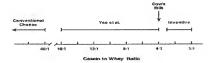
Reply to Office Action of April 4, 2007

Clear Error: No Prima Facie Case Of Obviousness Has Been Established Over Claims 1-7 and 27-42 using Yee Because Yee Fails To Disclose Or Provide A Reason To Derive The Claimed Ratio Of Casein To Whey

As acknowledged in the Office Action dated April 4, 2007, Yee fails to disclose the claimed ratio of casein to whey (i.e., about 50:50 to about 75:25 or about 1:1 to about 3:1). Yee only discloses a ratio of casein to whey between 16:1 and 4:1. The Office Action has provided no specific reason to modify Yee as proposed.

A. Yee is Technically Limited to Casein: Whey Ratios Between 16:1 and 4:1

The process of Yee is <u>technically incapable</u> of producing a cheese with higher levels of whey protein or a lower ratio. The Office Action ignored Yee's technical deficiencies by merely suggesting "Yee et al teach a modification of the protein ratios." (April 4, 2007 Office Action, pg. 3.) However, just because Yee discloses a range of casein to whey ratios does not mean this references also discloses ratios outside of this range. The attached graphical representation illustrates the various casein to whey ratios of conventional cheese (i.e., 150:1 to 40:1), the cheese of Yee (i.e., 16:1 to 4:1), a typical cow's milk (i.e., 4:1), and the inventive cheese (i.e., about 1:1 to about 3:1).



Yee is incapable of producing ratios of casein to whey in the inventive range of the graph. The process of Yee utilizes ultrafiltration to retain whey and casein as naturally occurring in milk. As specified by Yee, "[m]ilk has a whey proteins [sic] to casein ratio of about 1:4." (Col. 1, lines 14-15.) As is known, milk subjected to ultrafiltration will

Application No. 10/694,960
BRIEF IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW dated July 3, 2007
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concentrate both whey and casein; however, the ratio of whey to casein does not change as a result of ultrafiltration. As Yee explains, "[t]he selective concentration of milk results in the formation of a retentate that contains both casein and whey proteins, in the same ratio as in the milk." (Col. 1, lines 32-35.) Because Yee uses ultrafiltration to retain whey and casein from milk, the ratio of casein to whey in the resultant cheese of Yee can never be higher than the natural ratio of milk (i.e., 4:1). The Office Action fails to address these technical deficiencies of Yee.

B. Yee States Cheeses with Higher levels of Whey are Unacceptable

In addition to Yee's technical limitations, Yee also specifically discloses that increasing the amount of whey in cheese results in problems that become increasing more problematic as the level of whey increases. In particular, Yee states:

One of the well know problems with cheese made by ultrafiltration, and hence containing high levels of whey proteins, is the poor melt properties of the cheese. On page 78, the Qvist document states, "It is an unfortunate fact that cheese made from UF-concentrated milk has impaired stretching and melting properties compared to traditional cheese the difference becoming progressively larger as the degree of concentration is increased."

(Col. 3, lines 45-52, emphasis added.) As a result, Yee also <u>teaches away</u> from higher levels of whey. The Office Action fails to address Yee's specific acknowledgement that higher levels of whey in cheese result in unacceptable properties.

C. No Reason Has Been Provided To Modify Yee As Proposed

The MPEP in section 2143.01 indicates that the mere fact that references can be modified does not render the resultant modification obvious unless the prior art also suggests the desirability of the modification. Indeed, KSR Int'l Co. v. Teleflex, Inc., No. 550 U.S. _____, 04-1350, *14 (April 30, 2007) requires an explicit reason to modify the reference. In this case, that reason is lacking because Yee fails to suggest the desirability

Application No. 10/694,960
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of the modification due to Yee's technical shortcomings, and perhaps even more importantly, Yee specifically discloses that increased levels of whey results in cheese having unacceptable properties. The Office Action's suggestion that "the manipulation of the casein to whey ratio is well-known in the art" (April 4, 2007 Office Action, pg. 3) is insufficient to provide an explicit reason to modify Yee as proposed in light of Yee's specific disclosures against the proposed modification.

II. Clear Error: Office Action Has Failed to Consider Unexpected Results

The Office Action suggested the Applicants need to provide evidence of unexpected results. However, because the Office Action has not provided a *prima facie* case of obviousness using the Yee reference as discussed above, the Applicants are not required to provide such evidence. Nevertheless, Applicants further point out that at least in Examples 1 and 2 of Applicants' specification (pages 14-15), the unexpected results are described showing how exemplary forms of the claimed process cheese exhibit improved firmness and softening point even with a ratio of casein to whey below 3:1. Control samples exhibited unacceptable firmness and softening point.

III. <u>Clear Error</u>: No Prima Facie Case Of Obviousness Has Been Established With Claims 33-37 Over Yee Because Yee Fails To Disclose Or Provide A Reason To Derive The Claimed Ratio Of Casein To Whey And Fails to Disclose All Claim Limitations

Independent claim 33 is similar to original claim 1, but further defines the casein and whey protein as a homogenized emulsion. In addition to not disclosing the claimed ratio, Yee specifically teaches away from a process cheese that includes casein and whey protein in the form of a homogenized emulsion. To the contrary, Yee discloses the opposite by stating the results of Example 2 in Yee "clearly demonstrate the detrimental impact of high shear... on melt performance." (Col. 14, lines 44-46.)

Application No. 10/694,960
BRIEF IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW dated July 3, 2007
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IV. <u>Clear Error</u>: No *Prima Facie* Case Of Obviousness Has Been Established With Claims 38-42 over Yee Because Yee Fails To Disclose Or Provide A Reason To Derive The Claimed Ratio Of Casein To Whey And Fails to Disclose All Claim Limitations

Independent claim 38 is also similar to original claim 1, but further defines at least one of the casein or the whey protein as being a modified dairy protein. In addition to not disclosing the claimed ratio, there is also no disclosure in Yee of its protein being a modified dairy protein, or a disclosure of the specific forms of the modified proteins in dependent claims 39-42.

CONCLUSION

Applicants respectfully submit that there is at least one clear error that would overcome the rejection of at least one claim. Therefore, Applicants request that the Office Action mailed April 4, 2007 be withdrawn and this application passed to allowance.

Respectfully submitted,
FITCH, EVEN, TABIN & FLANNERY

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